PROFESSIONAL

Model CDR631 User Guide

Compact Disc Recorder

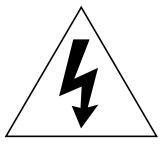
marantz®

CDR631(U)_Cover2-3.p65 1 8/4/00, 9:27 AM

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPON DANTE DE LA PRISE ET POUSSER JUSQU’AU FOND.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

NOTE:**Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.**

LASER SAFETY

This unit employs a LASER. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

CAUTION-USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURE OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le materiel brouilleur du Canada.

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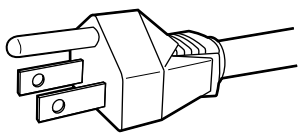
INPORTANT SAFETY INSTRUCTIONS

READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read Instructions — All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions — The safety and operating instructions should be retained for future reference.
3. Heed Warnings — All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions — All operating and use instructions should be followed.
5. Water and Moisture — The appliance should not be used near water — for example, near a bathtub, wash-bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
6. Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

8. Wall or Ceiling Mounting — The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
9. Ventilation — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
10. Heat — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
11. Power Sources — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
12. Grounding or Polarization — The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.



AC POLARIZED PLUG

13. Power-Cord Protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning — The appliance should be cleaned only as recommended by the manufacturer.
15. Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
16. Object and Liquid Entry — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
17. Damage Requiring Service — The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
18. Servicing — The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

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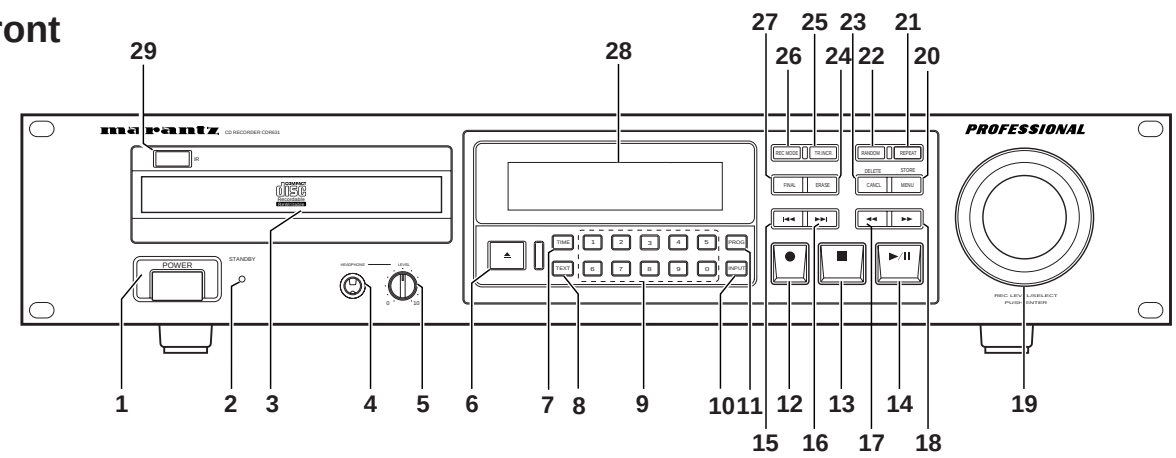
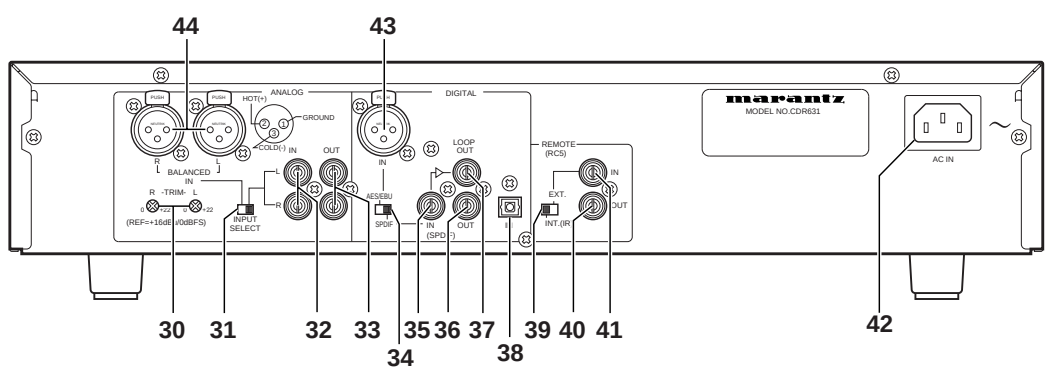
CONTROLS AND CONNECTIONS

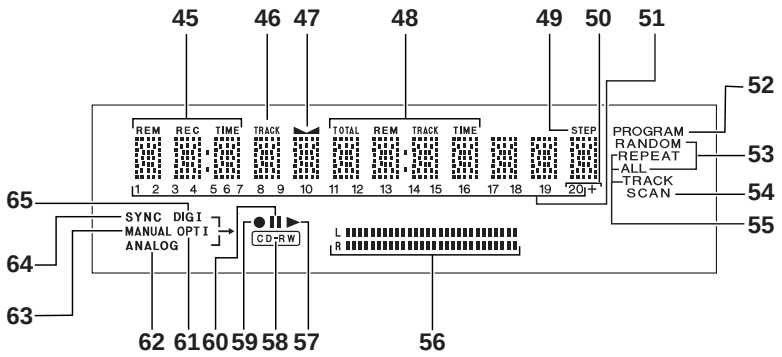
Player front



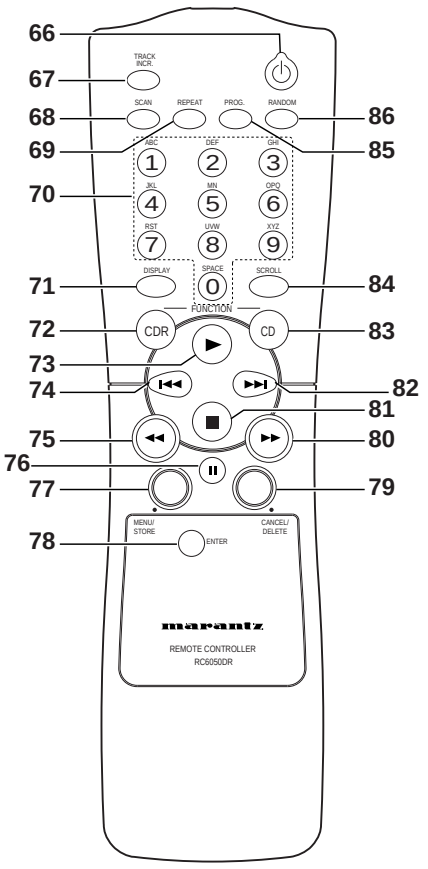
Player back



Display



Remote control



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INTRODUCTION

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Copyright

Recording and playback of some material may require permission. For further information refer to the following:

- Copyright Act 1956
- Dramatic and Musical Performers Act 1958
- Performers Protection Acts 1963 and 1972
- Any subsequent statutory enactments and orders

Congratulations on your purchase of the CDR631 CD recorder. This unit enables you to record, play, and erase (using CD-RW discs) your own audio Compact Discs. Naturally the recorder can also be used to play all pre-recorded CDs.

CD-R and CD-RW Discs

With the exception of legal restrictions pertaining to copying, you can create your own high-quality audio recordings on CD. The discs used to record must bear the logos shown below.

There are two types of recordable discs:

1 CD-R (record once):

CD-R discs are only able to be recorded onto a single time but will playback in most CD players.
CD-R discs can be recognized by the following logos:

COMPACT disc DIGITAL AUDIO Recordable

COMPACT disc Recordable

2 CD-RW (multiple recording):

CD-RW discs are able to be recorded onto many times but will only playback in CD players offering CD-RW compatibility. Products that offer CD-RW playback compatibility are available from Marantz, Marantz Professional, and Superscope. Please contact your dealer for more information on these products.
CD-RW discs can be recognized by the following logos:

COMPACT disc DIGITAL AUDIO ReWritable

COMPACT disc ReWritable

Notes:

- Most DVD players cannot playback CD-R discs and some cannot playback CD-RW discs because of laser power differences.
- Some CD players may be able to playback finalized CD-RW discs.
- Some CD players can not play the finalized CD-R discs because of the low reflectivity of such discs.

The CDR631 is able to record onto any 1X compatable CD-R and CD-RW disc, including discs for Consumer use and Professional (computer) discs. For a list of recommended discs, please see the Marantz Professional website at
www. marantz. com

Note:

For both CD-R and CD-RW discs, only discs that are compatible with 1X recording should be used.

It is forbidden to copy material protected by copyright, including computer programs, films, television and audio recordings. This appliance may not be used for applications of this type.

Unpacking

First check the contents of the packaging. It should contain the following:

- CD-Recorder CDR631
- Remote control with batteries packaged separately
- Power cord
- Digital coaxial cable (black)
- Stereo RCA Audio cable (red and white)
- Instructions

If one of these components is missing, please inform your supplier immediately. Save the packaging material it may come in handy if you move the appliance.

Setup

- Place the recorder on a strong, vibration-free surface.
- Do not use the recorder under extremely damp conditions.
- If the recorder is placed in a cabinet, make sure that a 1"(2.5 cm) space remains free on all sides of the recorder for proper ventilation.

Attention!

If this unit is not used or operated in accordance with the instructions, this may result in exposure to dangerous radiation or other risks.

Only authorized technicians are allowed to open the appliance casing or to perform repairs or maintenance.

Compact Discs Care

The glossy side shining like a rainbow is the front side of the disc, and the side on which the label is printed is the back.

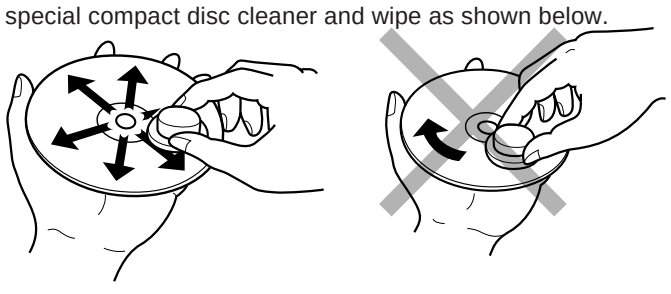
Handle discs carefully so as not to damage or scratch the front side.

To protect the disc, avoid placing it in the following locations:

- In direct sunlight or near a source of heat like a heater.
- In a place which is damp or dirty.
- In a place which could be exposed to rain, such as near a window.

Always keep the disc surface clean.

Up to six billion data units are recorded on the front side of the disc. When cleaning the disc surface, always be sure to use a special compact disc cleaner and wipe as shown below.



Wipe in a radial direction. Do not wipe in circumferential direction.

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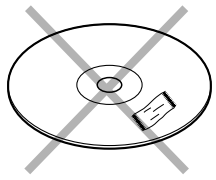
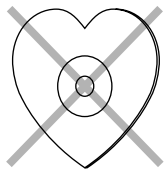
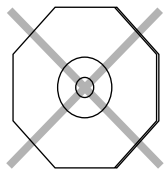
- Do not use record cleaner to clear a disc, as this will adversely affect the disc surface.
- Store discs properly by placing them in their disc cases.
- Do not attach a piece of paper or sticker on the label side of disc. When a disc has a piece of plastic tape or rental CD label with paste protruded from the edge or when a disc has a trace of such a sticky object, do not attempt to play the disc. If such a disc is played on the CD player, impossibility of taking out the disc or other malfunction may result.



- Write only on the printed side of a CD-R or CD-RW, and only with a soft felt-tipped pen.
- Do not use a disc with a special shape.
- Do not attempt to play a disc with a special shape such as a heart-shaped disc or octagonal disc. Otherwise the equipment malfunction may result.

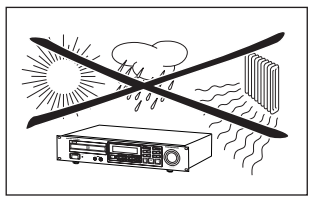




Maintenance

Clean the CD-Recorder with a soft, slightly dampened lint-free cloth. Do not use any cleaning agents as they may have a corrosive effect.

Do not expose the CD-Recorder, batteries or CDs to humidity, rain, sand or excessive heat (caused by heating equipment or direct sunlight).



If the CD-Recorder in unable to read CDs correctly, use a commonly available cleaning CD to clean the lens before taking the CD player to be repaired. Other cleaning methods may destroy the lens. Always keep the tray closed to avoid dust on the lens.

The lenses may cloud over when the CD-Recorder is suddenly moved from cold to warm surroundings. It is not possible to play a CD then. Leave the CD-Recorder in a warm environment until the moisture evaporates.

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CONTROLS AND CONNECTIONS

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Controls on the front

(1) **POWER** ..... turns the CD-Recorder ON and OFF
(2) **STANDBY indicator**
(3) **Disc tray** ..... records CD-R(W) and plays CD and CD-R(W)
(4) **HEADPHONE** ..... socket for headphones
(5) **LEVEL** ..... adjusts the headphone volume
(6) ▲ ..... opens/closes disc tray
(7) **TIME** ..... selects display information/text
(8) **TEXT** ..... activate scrolling of text over the display (once)
(9) **Number keys 0 - 9** ..... selects a track by number
(10) **INPUT** ..... selects external input source
(11) **PROG** ..... opens/closes program memory
(12) ● ..... starts recording, finalizing, erasing
(13) ■ ..... stops/clears a program
(14) ▶/II ..... starts play/pauses play or recording
(15) I◀◀ ..... previous track (Play and Program mode)
(16) ▶▶I ..... next track (Play and Program mode)
(17) ◀◀ ..... - searches backward
(18) ▶▶ ..... - searches forward
(19) **REC LEVEL/SELECT** ..... - previous/next track (Play and Program mode)
- recording level control (recording)
- selects settings (menu on)

PUSH ENTER ..... - plays selected tracks
- selects settings in Menu mode
- programs track numbers

(20) **STORE/MENU** ..... - enters Menu mode
- stores Menu settings

(21) **REPEAT** ..... repeat play(All, program or track)
(22) **RANDOM** ..... plays CD-R(W) or program in random order
(23) **DELETE/CANCEL** ..... - deletes tracks from a program
- deletes text in Menu mode
- returns to a higher level in the menu

(24) **ERASE** ..... selects erasing mode
(25) **TRACK INCR.** ..... increases track numbers during recording
(26) **REC MODE** ..... selects recording mode
(27) **FINAL** ..... selects finalize mode
(28) **Display** ..... information screen
(29) **IR sensor** ..... receives signals from the remote control.

Note:

- Some buttons are only on the remote control.

Connections at the back

(30) **TRIM** ..... adjust the XLR input level
(31) **INPUT SELECT** ..... selects the input BALANCED IN or ANALOG IN
(32) **ANALOG IN** ..... connects to the line output of an external analog source (left and right)
(33) **ANALOG OUT** ..... connects to the line input of an analog pre-amp (left and right)
(34) **AES/EBU-SPDIF switch** ... selects AES/EBU or SPDIF input Format
(35) **DIGITAL (SPDIF) IN** ..... connects to the digital coaxial output of an external digital source
(36) **DIGITAL (SPDIF) OUT** .... connects to the digital coaxial input another digital device
(37) **DIGITAL (SPDIF) LOOP OUT** ..... connects to the digital coaxial input another digital device
(38) **DIGITAL (SPDIF) OPT INPUT** ..... connects to the digital optical out put of an external digital source
(39) **REMOTE CONTROL SWITCH** ... selects remote control from the IR sensor on the front panel (INT.) or the REMOTE (RC5) input (EXT.)
(40) **REMOTE CONTROL OUT** ..... connects to a remote control input
(41) **REMOTE CONTROL IN** .... connects to a remote control output
(42) **Connection to AC power**
(43) **DIGITAL (AES/EBU) BALANCED IN** ..... connects to the digital balanced output of an external digital source
(44) **BALANCED IN** ..... connects to the balanced output of an analog source (left and right)

DISPLAY indications

(45) **REM/REC TIME** ..... remaining recording time / recording time
(46) **TRACK** ..... track number
(47) ▙▟ ..... balance (lights during balance adjustment)
(48) **TOTAL REM TRACK TIME** ..... total or remaining time of disc or track
(49) **STEP** ..... indicates the number of tracks in a program
(50) **20 +** ..... disc or program contains more than 20 tracks
(51) **Track Number** ..... tracks on a discs or in a program track in play
(52) **PROGRAM** ..... flashes during programming/ lights in program mode
(53) **RANDOM ALL** ..... plays tracks in random order
(54) **SCAN** ..... manual track increment
(55) **REPEAT TRACK/ALL** ... lights up when a track/ complete disc (or program) is repeated.
(56) **L/R** ..... record/play level bar. Indicates the audio signal level.
(57) ▶ ..... lights during play
(58) **CD-RW** ..... indicates the type of disc in the disc tray
(59) ● ..... lights during recording
(60) II ..... indicates pause mode
(61) OPT I→ ..... optical input 1 selected for external recording

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(62) **ANALOG** ..... analog input selected for external recording
ANALOG ..... analog recording
(63) **MANUAL** ..... manual track increment
(64) **SYNC** ..... automatic or synchronized start of external recording
(65) **DIGI** ..... digital input 1 selected for external recording

REMOTE CONTROL

Remote control commands

(66) **STANDBY** ⏻ ..... switches Standby On/Off
(67) **TRACK INCR.** ..... increases track numbers during recording
(68) **SCAN** ..... plays the first 10 seconds of each track
(69) **REPEAT** ..... repeat play(All, program or track)
(70) **Number/alphabet keys 0 - 9** .. - selects a track by number
- selects character for text input
(71) **DISPLAY** ..... selects display information/text
(72) **CDR** ..... selects CD-Recorder control
(73) ▶ ..... starts play
(74) |◀◀ ..... previous track (Play and Program mode)
(75) ◀◀ ..... - searches backward
(76) **II** ..... pauses play/recording
(77) **MENU/STORE** ..... - enters Menu mode
- stores Menu settings
(78) **ENTER** ..... - selects settings in Menu mode
- programs track numbers
- starts playback of selected track
(79) **CANCEL/DELETE** ..... - deletes tracks from a program
- deletes text in Menu mode
- returns to a higher level in the menu
(80) ▶▶ ..... - searches forward
(81) ■ ..... stops CD-R/RW and clears a program
(82) ▶▶| ..... next track (Play and Program mode)
(83) **CD** ..... selects CD player control
(84) **SCROLL** ..... activates scrolling of text over the display
(85) **PROG. (ram)** ..... opens/closes program memory
(86) **RANDOM** ..... plays CD-R/RW or program in random order

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INSTALLATION

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The numbers between parentheses refer to the fold-out.

This CD-Recorder can be used to record from any digital or analog audio source, either directly or through a mixer/pre-amplifier. In addition, this unit can also be used as a regular CD player.

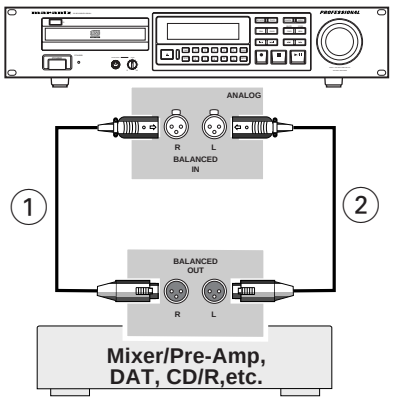
For correct connection to other audio equipement, please refer to the operating instructions for those units.

The following options are available:

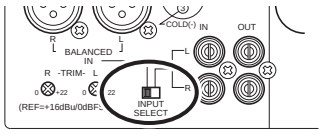
- Balanced analog connections
- Unbalanced analog connections
- Digital AES/EBU connections
- Digital SPDIF connections
- Digital Optical connections
- Digital cascade connections

Balanced analog connections

1 **For recording, connect an analog balanced cable** from **the CD-Recorder to a source based on the diagram below:**

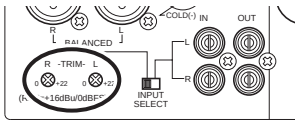


2 **Set *INPUT SELECT* switch (31)** to **BALANCED IN**.



Note:

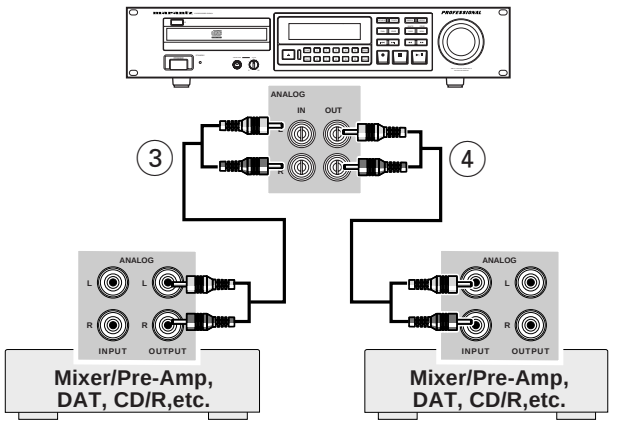
- The default (set at factory) input level is +16dBu / 0dBFS. If you want to change the level, rotate the TRIM control (30) to adjust input level for both L and R.



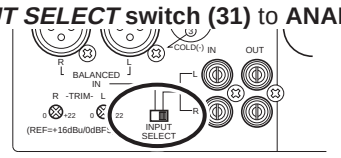
- Make sure that all balanced inpnts do not carry phantom power. It may damage the unit.

Unbalanced analog connections

1 **For recording and playing, connect the CD-Recorder to other equipment based on the diagram below**:



2 **Set *INPUT SELECT* switch (31)** to **ANALOG L/R (RCA)**.

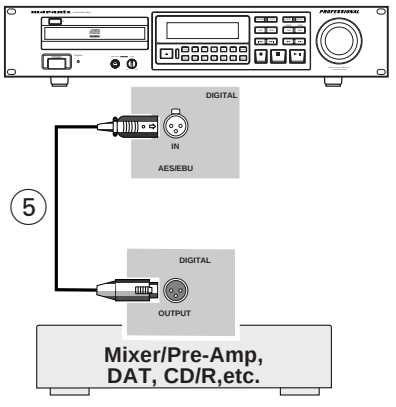


Note:

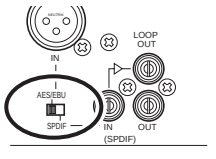
Never connect the CD recorder to the PHONO input on a Pre-Amp or Receiever.

Digital AES/EBU connections

1 **For recording, connect a balanced cable** from **the CD-Recorder to a source based on the diagram below**:



2 **Set *AES/EBU SPDIF* switch (34)** to **AES/EBU**.



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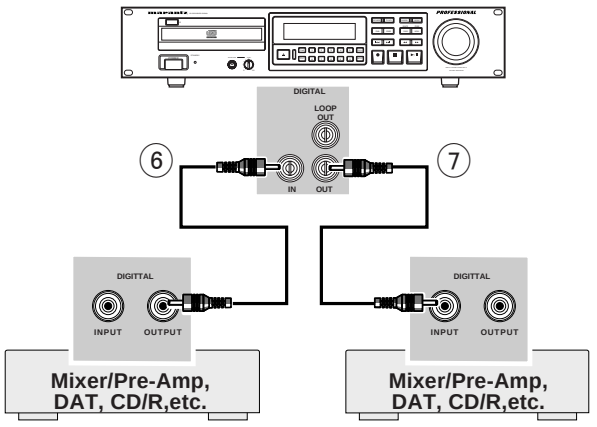
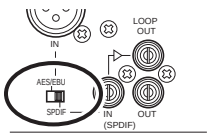
INSTALLATION

Digital SPDIF connections

1 **For recording and playing, connect coaxial cables** from **the CD-Recorder to digital equipment based on the diagram below**:



2 Set ***AES/EBU-SPDIF*** **switch (34) to SPDIF.**

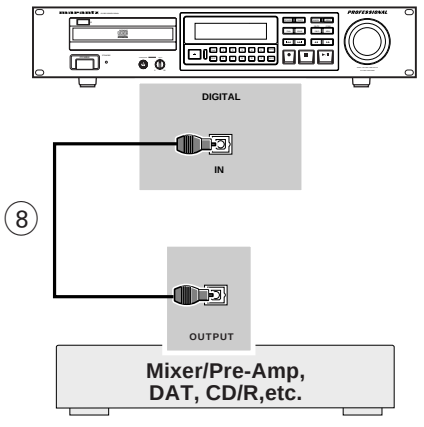


Note:

You can also connect the LOOP OUT socket on this CD-Recorder to the input sockets of a digital device when DIGITAL (SPDIF) IN is used.

Digital Optical connections

1 **For recording, connect a fiber-optic cable** to **the CD-Recorder with a digital equipment based on the diagram below**.



Note:

Before Connecting the cables, remove the dust caps from the digital optical connections. We recommend that you save the caps.

Digital cascade connections

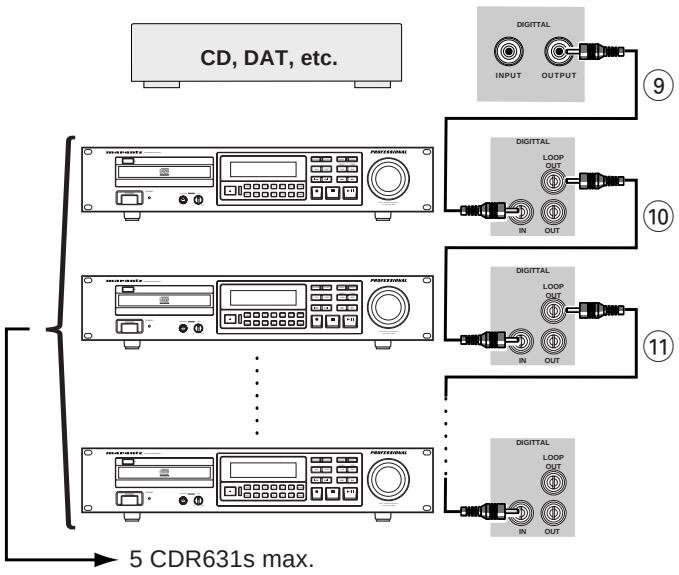
Cascade recording allows, via the LOOP OUT jack, multiple units to record all using the exact same digital signal. The LOOP OUT can also be used to pass a digital signal to other equipment without being processed by the CDR631.

Use the following steps to setup multiple CDR631s for recording from a single digital source:

1 **Connect the coaxial digital output of a digital source machine (CD, DAT, etc.) to the DIGITAL IN jack on the CDR631 as indiacted in step ⑨.**

2 **Connect the LOOP OUT of the first CDR631 to the DIGITAL IN on the next CDR631 as indiacted in step ⑩.**

3 **Continue to conect units as indicated in step ⑩ and ⑪.**



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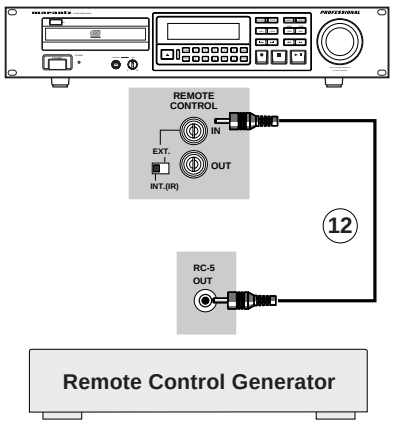
REMOTE CONTROL (RC5) CONNECTION

The numbers between parentheses refer to the fold-out.

Remote control cable connections

The REMOTE CONTROL (RC5) jacks on the back panel allow an external remote control system to control the playback functions of the CDR631. The control system is called RC5 and the chart below provides the control code list. For more information on the RC5 system and details regarding it's operation, please contact Marantz Professional.

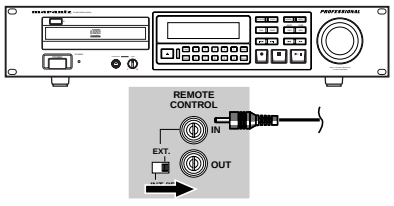
1. Connect a remote control cable to the CD recorder from a control system based on the diagram below:



Notes:

- When the external remote control is not used, it is recommended to leave the REMOTE CONTROL (RC5) switch in the IR position.
- A heavily shielded single-conductor wire is recommended.
- If it is desiriable, for example in a professional studio, to disable the IR receiver, set the REMOTE CONTROL (RC5) switch to the EXT. position.

2. Set REMOTE (RC5) switch (39) to EXT.



RC5 command list

Function	CDR Code	
	System code (dec)	Command code (dec)
Standby(on/off toggle)	26	12
Select CDR	26	63
0	26	00
1	26	01
2	26	02
3	26	03
4	26	04
5	26	05
6	26	06
7	26	07
8	26	08
9	26	09
Search BWD	26	50
Search FWD	26	52
Play	26	53
Stop	26	54
Pause	26	48
Track increm.	26	114
Next	26	32
Previous	26	33
Program	26	36
Menu/store	26	82
Cancel/delete	26	49
Enter	26	87
Random	26	28
Repeat	26	29
Scroll	26	11
Display	26	15
Intro scan	26	43

RC5 extended command

Fanction	System code(dec)	Command code(dec)	Data code(dec)
Power off (standby)	26	12	02
Power on	26	12	01

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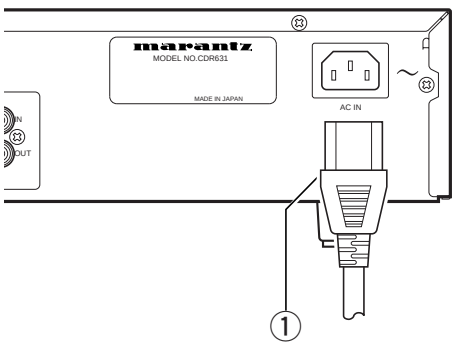
USING THE RECORDER

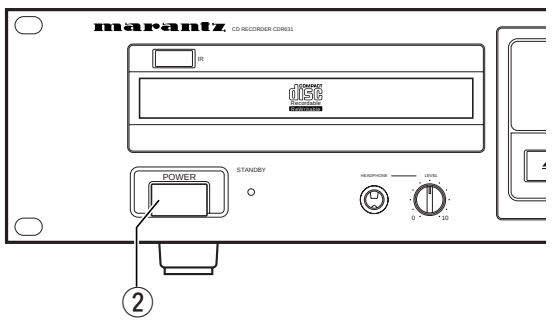
The numbers between parentheses refer to the fold-out.

Switching ON and OFF

1 **Plug the power cord supplied into the AC IN socket on the CD-Recorder, then into a AC power outlet.**



2 **Press the *POWER* (1) button on the front of the CD-Recorder to turn it on or off.**



Note:

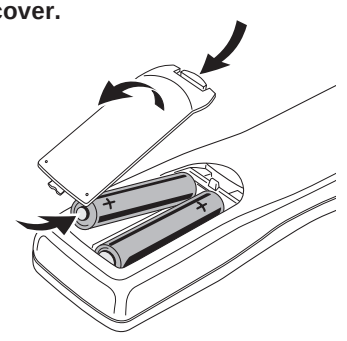
When the power is switched ON, the STANDBY function on the remote control (66) allows the CDR631 to be turned OFF except for the IR receiever circuit that will wait for the standby signal to turn power back on.

Using the remote control

1 **Open the battery compartment cover.**

2 **Insert 2 batteries (AA, LR-6 or UM-3; as supplied) as shown.**

3 **Replace the cover.**



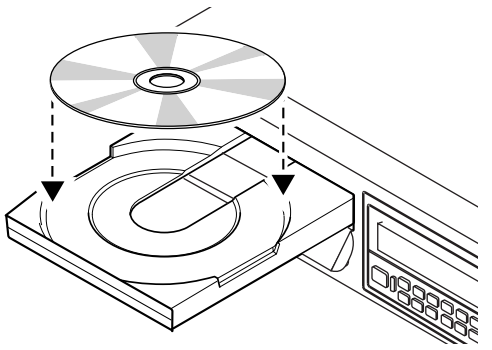
Note:

We recommend you use **2 batteries of the same type and condition**.

This remote control can switch “STANDBY ON/OFF” but cannot switch “POWER ON/OFF” on the CD-Recorder.

Batteries contain chemical substances, so they should be disposed of properly.

Inserting discs



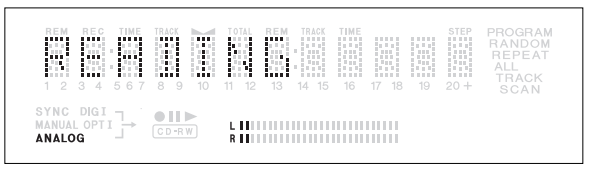
1 **Press ▲ (6) to open the disc tray.**

➔ OPEN lights up.

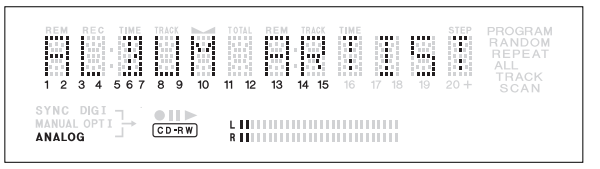
2 **Insert a CD, CD-R or CD-RW in the appropriate recess in the tray, label side up.**

3 **Press ▲ (6) to close the tray.**

➔ CLOSE lights up, followed by READING and the display will show the type of disc you inserted.

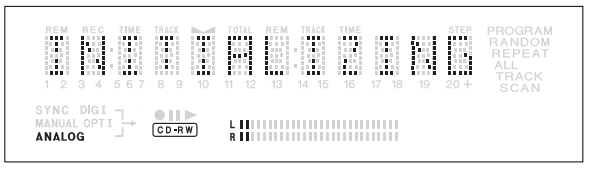


- If a CD-R(W) is finalized it will show CD on the display.
- If CD-text is available the TITLE/ARTIST will scroll by.



Notes:

- For recording it is important that the blank disc is completely free from dust particles or scratches. (see Compact Discs Care, page 2).
- If you insert a blank or partly-recorded CD-R/RW or an unfinalized CD-R/RW, the CD-Recorder will calibrate the disc for optimum recording. During this process the display will first show INITIALIZING and then the number of audio tracks. Calibration can take up to 30 seconds.



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The numbers between parentheses refer to the fold-out.

Remarks about recording

- **If the disc is a CD-RW and is already finalized you must unfinalize it first to record onto it.**
- The recording procedure is the same for CD-Rs and CD-RWs.
- If the disc already contains recordings, the CD-Recorder will automatically search for the end of the last track, so that recording can start from there.
- **There must be at least 7 seconds of recording time left on the disc**, otherwise you will not be able to enter record standby mode. DOES NOT FIT will light up.
- A maximum of 99 tracks can be recorded on a disc. Minimum allowable track length is 4 seconds.
- Recordings from DAT or DCC players will not always stop automatically.
- SRC (Sample Rate Conversion)
  This CD-Recorder can perform Sample Rate Conversion on the incoming signal, it is capable of handling sources ranging from 11 kHz up to 56 kHz.
  If no 44.1 kHz (± 100 PPM) source is connected, this CD-Recorder will automatically switch on the SRC.
- If the source is 44.1kHz (± 100PPM) the SRC will be automatically bypassed.
- See page 19 for information about the recording menu settings.

Important:

If you want to play a recorded CD-R disc on any regular CD player, it must first be finalized. (See FINALIZING/ UNFINALIZING.)

Finalized CD-RW discs play only on CD-RW compatible CD players.

See page 1 for more information on CD-R and CD-RW discs and Conpact Disc Care.

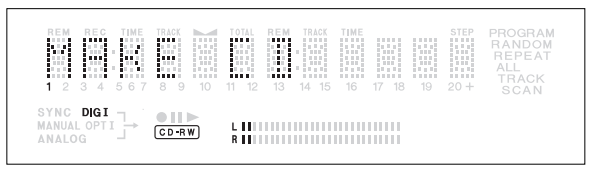
Warning:

Recording is no longer possible after finalizing a CD-R disc!

Recording modes

The CDR631 offers several recording modes.

- RECORD DISC - synchronised recording of a whole disc based on the tracks from a source CD, DAT, cassette or other source.
- RECORD TRACK - synchronised recording of a single track based on a single track from a source CD, DAT, cassette or other source.
- REC MANUAL - manually controlled recording from an external source.
- MAKE CD - same as the RECORD DISC function except that the CDR631 will automatically finalize the recorded CD once recording is finsihed.



Some remarks on recording:

- When **Auto track is on** (default setting), **track numbers will automatically be increased during recording**.
- If a finalized CD-R disc is inserted in the CD-Recorder, FINALIZED CD will be displayed. **Recording is not possible**.
- If a finalized CD-RW disc is inserted in the CD-Recorder, UNFINALIZE and PRESS ENTER will be displayed when the *REC MODE* (26) is pressed. If the *REC LEVEL/ SELECT* (19) knob is pressed, the disc will be unfinalized.
- If the recording source is a special disc such as HDCD or DTS, you have to
  - set the sampling frequency to 44.1kHz.
  - use a digital connection.
  - set the digital rec-volume of the CDR631 to 0 dB.
- When you copy the tracks from a DAT recorded by different sampling frequencies, noise might be recorded in the disc when the sampling rate changes.

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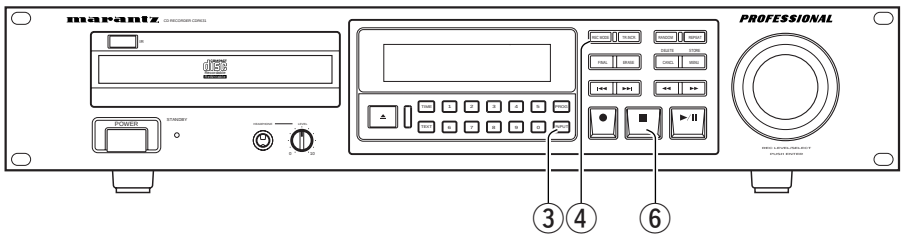
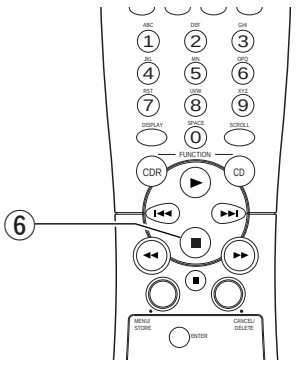
RECORDING

The numbers between parentheses refer to the fold-out.





CD-SYNC

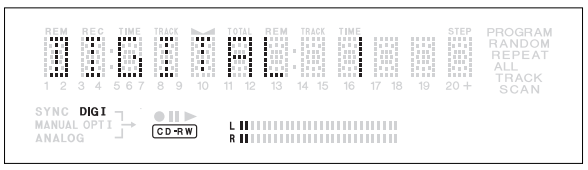
The CD-SYNC feature enables you to make fast and easy recordings of a CD, DAT, or MD. Track increments are automatically detected from the source material. Track increments cannot be added manually. In analog source material, a silence of 2.7 seconds or more is automatically detected as a track increment. (See page 19 for more detail)

① Make sure the disc is absolutely free of scratches and dust particles.

② Connect a cable from an external source to the CD-Recorder. (see INSTALLATION from page 5 to 7.)

③ Press *INPUT* (10) repeatedly until the selected source, appears on the display (depending on the digital connection used):

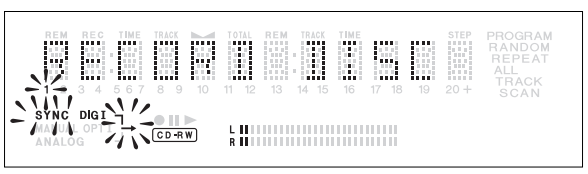
→ **DIGI**, **OPTI** or **ANALOG** lights up and DIGITAL 1, OPTICAL or ANALOG appears on the display.



④ With the CD-Recorder stopped, press *REC MODE* (26).

once: to select 'RECORD DISC'
twice: to select 'RECORD TRACK'
four times: to select 'MAKE CD' (When ANALOG was selected, this option does not appear on the display.)

→ ↳ and **SYNC** starts to flash.



- If **DIGI** or **OPTI** flashes, the digital data is not being received correctly. Check all connections and settings on both the source unit and the CDR631.

Notes:

- You can adjust the recording level by rotating *REC LEVEL/ SELECT* (19).

DIGITAL RECORDING : +6dB ~ –63dB
ANALOG RECORDING : 0dB ~ –63dB

- You can adjust the recording balance by pressing the *STORE/MENU* (20) button and then pressing *REC LEVEL/ SELECT* (19). Rotate REC LEVEL/SELECT to adjust the balance. Press STORE/MENU when finished.

EQUAL BALANCE : L = 100 , R = 100
ALL LEFT CHANNEL : L = 200 , R = 0
ALL RIGHT CHANNEL : L = 0 , R = 200

⑤ To start recording, press *PLAY* on the selected source.

→ The CDR631 automatically starts to record. The recording time left appears on the display.

- If, however, you start the source during a track, CD-SYNC recording starts at the beginning of the next track (or track ID) or after 2.7 seconds of silence in analog recordings.
- To check the elapsed recording time, press *TIME* (7) or *DISPLAY* (71). (This can also be done during recording)
- The recorder stops automatically.

⑥ To stop recording manually, press ■ (13, 81).

- If ■ (13, 81) was pressed within 3 seconds after pressing ***PLAY*** on the selected source, no recording will take place.
- To pause recording, press ▶/II (14) or II (76).
  To resume recording, press ● (12) on the CDR631.

After recording, the display will show UPDATE for several seconds as it finishes recording.

Notes:

- Recordings from DAT, DCC or analog sources will only stop after 20 seconds silence.
- MAKE CD is a recording mode that will auto finalize after synchronized recording. It takes about 1 minute to start auto finalizing after finish recording the last track. (WAIT appears on the display.)
- The recorded sound might be distorted when you adjust the recording level above 0dB for digital recording and -12dB for analog recording. The default setting of record level for digital is 0dB and analog is -12dB.

Important:

If you want to play the recorded CD-R disc on any regular CD player, it must first be finalized. See finalizing discs on page 12.

Finalized CD-RW discs play only on CD-RW compatible CD players.

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RECORDING

The numbers between parentheses refer to the fold-out.

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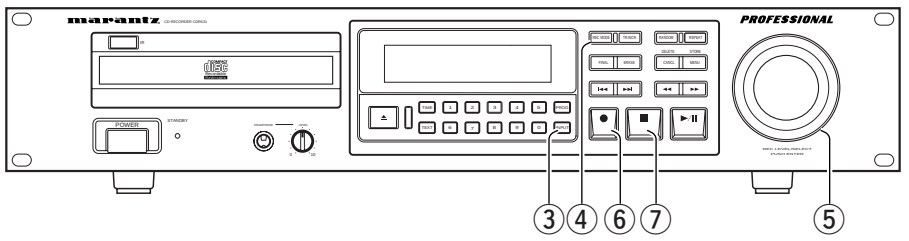
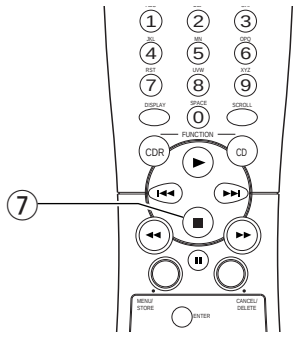




Manual start recording

About AUTO TRACK and AUTO STOP

- AUTO TRACK is a function to increment track numbers either manually or automatically.

  AUTO TRACK ON : track numbers will be automatically incremented according to the source. (See the table on page 19.)

  AUTO TRACK OFF: track numbers are manually incremented by pressing *TR. INCR.* (25) or *TRACK INCR.* (67).

- When AUTO TRACK is ON, you can also set AUTO STOP function.

  AUTO STOP ON : the recording will be stopped automatically. (See the Table on page 20.)

  AUTO STOP OFF: the recording has to be stopped manually.

Note:

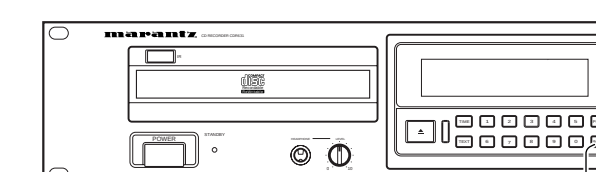
AUTO STOP function is only activated when Manual start recording (REC MANUAL mode) is used.

① Make sure the disc is absolutely free of scratches and dust particles.

② Connect a cable from an external source to the CD-Recorder. (see INSTALLATION page 5 and 6.)

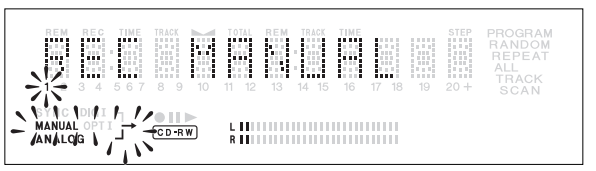
③ Press *INPUT* (10) repeatedly until the selected external source appears on the display (depending on the connection used):

→ **DIGI**, **OPTI** or **ANALOG** lights up and DIGITAL 1, OPTICAL or ANALOG appears on the display.



④ With the recorder stopped, press *REC MODE* (26) three times to enter the Manual Record standby mode.

→ REC MANUAL.



- If **DIGI** or **OPTI** flashes, the digital data is not being received correctly. Check all connections and settings on both the source unit and the CDR631.

⑤ Set the optimal recording level on the CD-Recorder.

1. Play the source first to set the optimal recording level on the CD-Recorder.
2. Rotate the *REC LEVEL/SELCT* (19) key until, on the Record/Play Level bar, all the blue segments light but the red segments do not light continuously during the loudest passages.
   DIGITAL RECORDING : +6dB ~ –63dB
   ANALOG RECORDING: 0dB ~ –63dB
3. Stop the source.
   - To record a 3-second silence at the start of a track, press ▶/II (14) or II (76) before starting the source.

⑥ To start recording, press ● (12) on the CD-Recorder and immediately start the source.

The track number and recording time left appear on the display.

- If ■ (13, 81) was pressed within 3 seconds after ● (12), no recording will take place.
- To check the elapsed recording time, press *TIME* (7) or *DISPLAY* (71). (This can also be done during the recording.)

⑦ To stop recording, press ■ (13, 81).

- To pause recording, press ▶/II (14) or II (76).

After recording the display will show UPDATE for several seconds as it finishes recording.

Note:

The recorded sound might be distorted when you adjust the recording level above 0dB for digital recording and -12dB for analog recording. The default setting of record level for digital is 0dB and analog is -12dB.

Important:

If you want to play the recorded CD-R disc on any regular CD player, it must first be finalized. See finalizing discs on page 12.

Finalized CD-RW discs play only on CD-RW compatible CD players.

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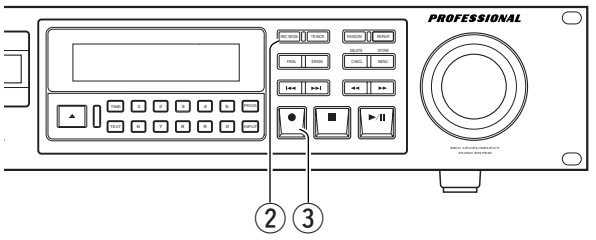
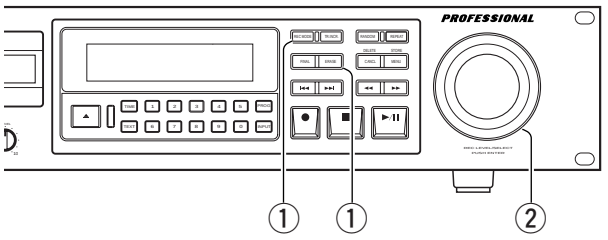
FINALIZING/UNFINALIZING

The numbers between parentheses refer to the fold-out.





Finalizing CD-R & CD-RW discs

Finalizing is necessary to:

- be able to play the recorded CD-R/RW disc on a CD PLAYER.
- avoid further unwanted recordings on a disc.
- avoid erasure of tracks on a CD-RW.

Notes:

- A finalized CD-R disc can never be recorded onto again.
- A finalized CD-RW disc can be unfinalized for continued recording.
- Finalizing is the process of writing the TOC (Table of Contents) on a disc so that a CD player can recognize the contents of the disc.

Auto finalizing

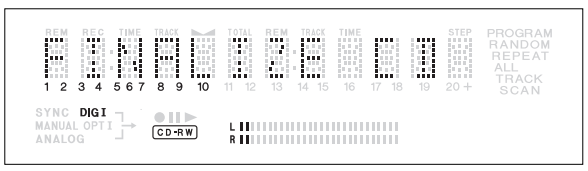
Auto finalizing is possible when using the MAKE CD *recording function.*

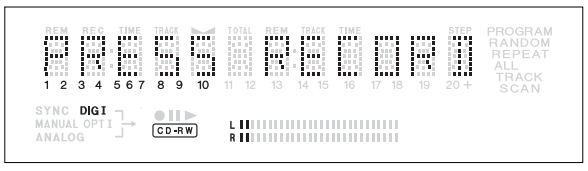
Manual finalizing

① **Make sure the disc (in the CD-Recorder) is absolutely free of scratches and dust particles.**

② **With the recorder stopped press *FINAL* (27).**

➔ The display shows FINALIZE CD and PRESS RECORD.





③ **Press ● (12).**

➔ xxxx FINAL and the approximate finalization time appears on the display.Finalizing will take at least 2 - 4 minutes.
The display counts down through the finalization.
On completion, the total number of tracks and the total time recorded appears on the display.
The CD-R or CD-RW indication in the display will change to CD on display.

Note:

During finalization, the CD-Recorder accepts no operating commands.

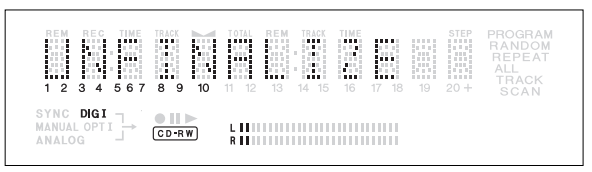
Unfinalizing CD-RW discs

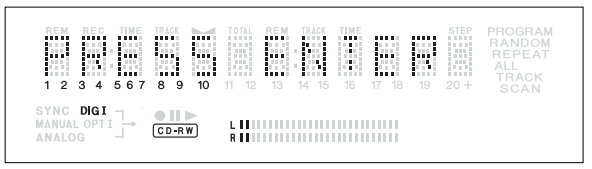
For CD-RW discs only.

If you want to make more recordings (or erasures of tracks) on a finalized disc you must unfinalize it first. The unfinalize process erases the TOC (Table of Contents) from the disc.

① **With the CD-Recorder stopped, press *REC MODE* (26) or *ERASE* (24).**

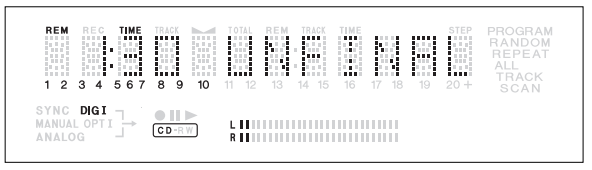
➔ UNFINALIZE and PRESS ENTER will appear on the display.





② **Press *REC/LEVEL/SELECT* (19).**

➔ The disc will now be unfinalized and can be recorded on again.



Notes:

- Unfinalizing will take approximately 1.5 minutes.
- When unfinalizing a CD-RW disc with text written on it, the text will be transferred to the CDR631Text Memory. If the Text Memory of the CDR631 is full becuase of text from other unfinalized discs, the MEMORY FULL/FINALIZE CD message will be displayed. In order to obtain memory space, text on this disc or on the other discs must be erased or other discs with stored text need to be finalized. See page 17 for more information regarding CD-Text and the Text Memory.

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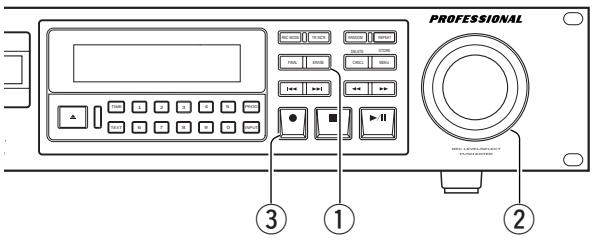
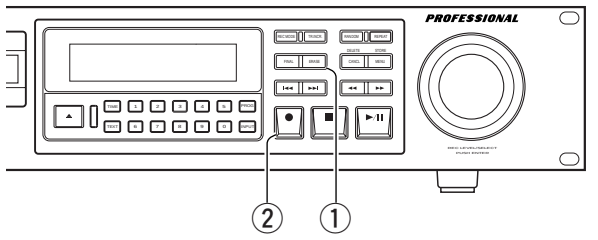
ERASING

The numbers between parentheses refer to the fold-out.

ENGLISH





Erasing

For unfinalized CD-RW discs only.
You can erase:

- one or more tracks from the end,
- the entire disc.

Erasing one or more tracks from the end

① Press *ERASE* (24) once.

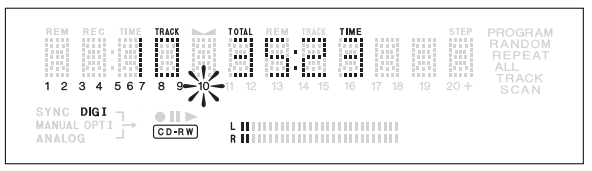
➔ Vœ5 display shows the number of tracks and their total playing time. ERASE TRACK and PRESS RECORD lights up.

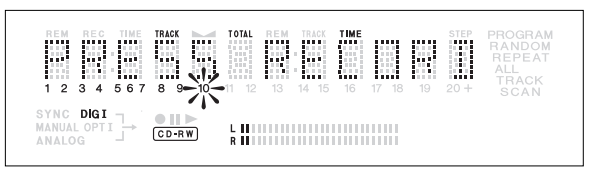
• If the disc is finalized, CD appears on the display after inserting a CD-RW in the recorder. The recorder will ask you to confirm unfinalizing first. Confirm by pressing the *REC LEVEL/SELECT* (19) knob or *ENTER* (78) on the remote control.

② Select the track(s) you wish to erase by turning the *REC LEVEL/SELECT* (19) knob to the left and confirm by pushing the knob.

➔ The selected track numbers start blinking on the track bar.

➔ The display shows the remaining number of tracks and the remaining playing time after erasing the selected track(s).


REM REC TIME TRACK TOTAL REM TRACK TIME STEP
PROGRAM RANDOM REPEAT ALL TRACK SCAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+
SYNC DIGI
MANUAL OPTI
ANALOG
CD-RW
L
R


REM REC TIME TRACK TOTAL REM TRACK TIME STEP
PROGRAM RANDOM REPEAT ALL TRACK SCAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+
SYNC DIGI
MANUAL OPTI
ANALOG
CD-RW
L
R

③ Press ● (12).

➔ The display shows the total countdown time and ERASE appears on the display.

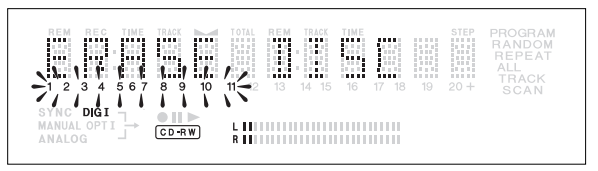
➔ After the selected track(s) have erased, the display shows the remaining tracks and their total playing time.

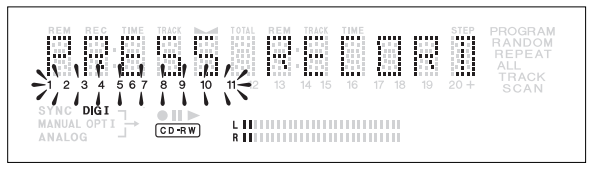
Erasing the entire disc

① Press *ERASE* (24) twice.

➔ The display shows the number of tracks and their total playing time. ERASE DISC and PRESS RECORD light up.

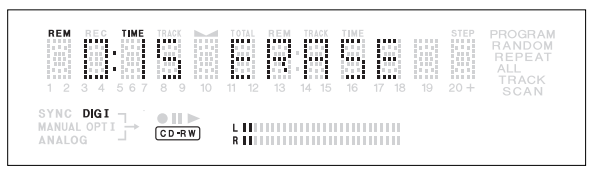
• If the disc is finalized, CD appears on the display after inserting a CD-RW in the recorder. The recorder will ask you to confirm unfinalizing first. Confirm by pressing the *REC LEVEL/SELECT* (19) knob or *ENTER* (78) on the remote control.


REM REC TIME TRACK TOTAL REM TRACK TIME STEP
PROGRAM RANDOM REPEAT ALL TRACK SCAN
1 2 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20+
SYNC DIGI
MANUAL OPTI
ANALOG
CD-RW
L
R


REM REC TIME TRACK TOTAL REM TRACK TIME STEP
PROGRAM RANDOM REPEAT ALL TRACK SCAN
1 2 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20+
SYNC DIGI
MANUAL OPTI
ANALOG
CD-RW
L
R

② Press ● (12).

➔ The display shows the total countdown time and ERASE appears on the display. The complete disc will be erased.


REM REC TIME TRACK TOTAL REM TRACK TIME STEP
PROGRAM RANDOM REPEAT ALL TRACK SCAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+
SYNC DIGI
MANUAL OPTI
ANALOG
CD-RW
L
R

Erasure of a complete disc may take up to 15 seconds.

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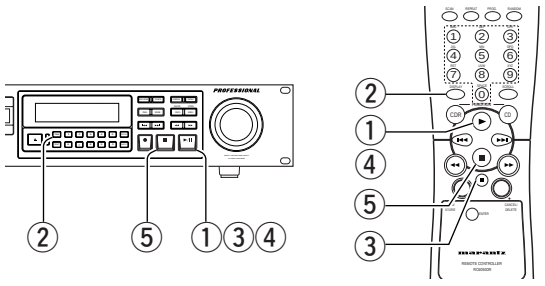
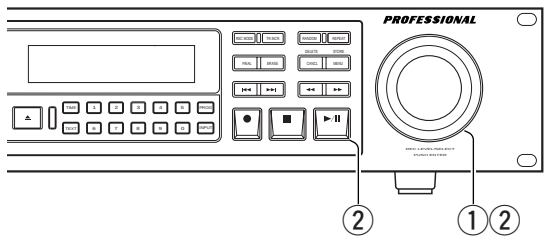
ENGLISH

PLAYING

The numbers between parentheses refer to the fold-out.



EX: Selecting a track when CD play is stopped
1 On the CDR631 recorder <i>.



Playing a CD

① **Press ▶/II (14) to start CD play.**
➔ ▶ lights up and the track number and track time of the track in play appear on the display.

② **Press *TIME* (7) or *DISPLAY* (71) once, twice or three times to see:**
➔ remaining track time, total remaining time, text information (see MENU MODE page 17).

③ **To pause play temporarily, press ▶/II (14) again.**
➔ II lights on the display.

④ **To continue play, press ▶/II (14) again.**

⑤ **To stop play, press ■ (13, 81).**
➔ The number of tracks and the total playing time appear on the display.

Selecting a track

Selecting a track during play

1 On the CDR631 recorder <i>.
① Turn the *REC LEVEL/SELECT* (19) knob until the required track number appears on the display.
➔ Play skips to the beginning of the selected track.

2 On the CDR631 recorder <ii>.
① Key in the required track number using the *NUMERICAL* (9) keys. For 2-digit track numbers, press the keys in rapid succession.

3 On the CDR631 recorder <iii>.
① Press |◀◀ (15) or ▶▶| (16) one or more times.
➔ Play skip to the begining of the present, previous or subsequent tracks.

4 On the remote control <i>.
① Key in the required track number using the *NUMERICAL* (70) keys. For 2-digit track numbers, press the keys in rapid succession.
➔ Play skips to the beginning of the selected track.

5 On the remote control <ii>.
① Press |◀◀ (74) or ▶▶| (82) one or more times.
➔ Play skips to the beginning of the present, previous or subsequent tracks.

Selecting a track when CD play is stopped

1 On the CDR631 recorder <i>.
① Turn the *REC LEVEL/SELECT* (19) knob until the required track number appears on the display.
② Press *REC LEVEL/SELECT* (19) to confirm or press ▶/II (14) to start playing.

2 On the CDR631 recorder <ii>.
① Key in the required track number using the *NUMERICAL* (9) keys. For 2-digit track numbers, press the keys in rapid succession.

3 On the CDR631 recorder <iii>.
① Briefly press |◀◀ (15) or ▶▶| (16) one or more times.
② Start playback by pressing ▶/II (14) or *REC LEVEL/SELECT* (19).

4 On the remote control <i>.
① Key in the required track number using the *NUMERICAL* (70) keys. For 2-digit track numbers, press the keys in rapid succession. Play starts.

5 On the remote control <ii>.
① Briefly press |◀◀ (74) or ▶▶| (82) one or more times.
② Start playback by pressing ▶ (73) or *ENTER* (78).

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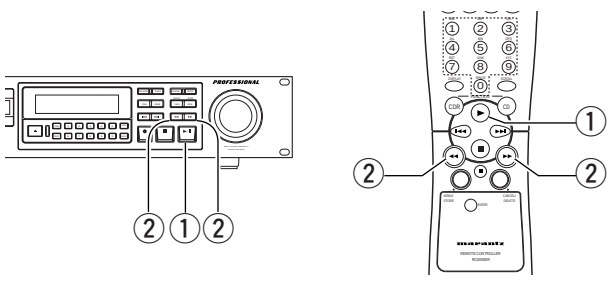
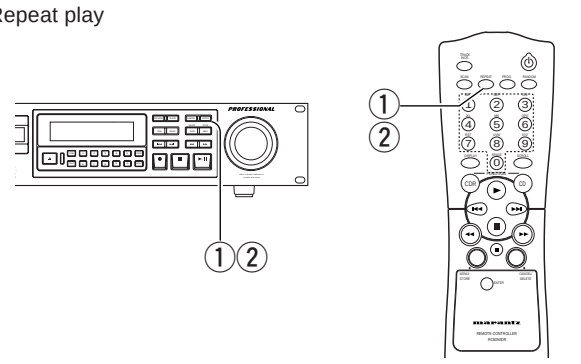
PLAYING

The numbers between parentheses refer to the fold-out.

EX: Search



EX: Repeat play



Scan play

① **To start scan play, press *SCAN* (68) on the remote control.**
- The first 10 seconds of each track will be played.
- The CDR631 automatically stops after playing all tracks.

② **To stop scan play, press ■ (13, 81).**
- The SCAN indiction disappears from the display.

Search

① **Press ▶/II (14) or ▶ (73).**

② **Hold down ◀◀ (17, 75) or ▶▶ (18, 80).**
➔ The player first searches backwards or forwards at 10 times normal speed with sound at low volume, then goes to 50 times normal speed with sound muted.

③ **Release the button at the desired point.**
➔ Play starts at the desired point.

Note:
During Random, Repeat Track or Programmed play, search is restricted to within the track being played at the time.

Random play

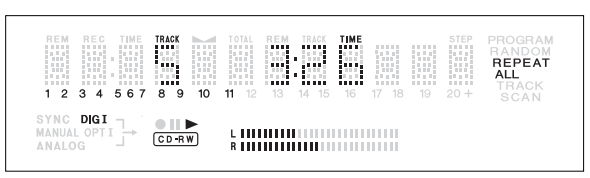
① **Press *RANDOM* (22, 86) before or during CD play to start random play.**
➔ The tracks on the CD (or program if set) play in random order.

② **Press *RANDOM* (22, 86) again to return to normal CD play.**

Note:
Random is also cleared if you open the disc tray.

Repeat play

① **Press *REPEAT* (21, 69) one or more times during CD play.**
➔ When **REPEAT TRACK** lights up, the current track plays repeatedly. When **REPEAT ALL** lights up, the disc or program plays repeatedly.



② **To return to normal play, press *REPEAT* (21, 69) one or more times until:**
➔ The **REPEAT** indication disappears from the display.

Note:
Repeat is also cleared if you open the disc tray.

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ENGLISH

PROGRAMMING

The numbers between parentheses refer to the fold-out.

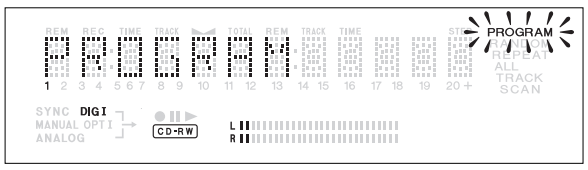
Programmed play

- You can program up to 99 tracks to play in any desired sequence.
- Tracks can be programmed more than once, but each time counts as a track. (step)

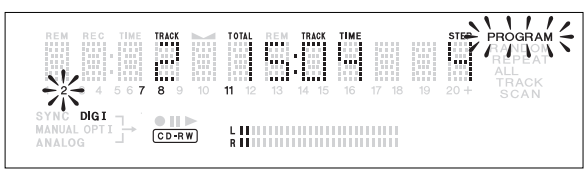
Programming for playback

① Press *PROG* (11, 85) to enter Program mode.

➔ **PROGRAM** indication flashes and PROGRAM appears on the display.



② Select the required track numbers by turning the *REC LEVEL/SELECT* (19) knob left or right and store by pressing the knob.



or:

Key in a track number with the *NUMERICAL* (9, 70) keys. For 2-digit numbers, press the keys in rapid succession and store by pressing *REC LEVEL/SELECT* (19) on *ENTER* (78).

➔ The track will be stored in the program.

➔ The track number, total program time and the number of programmed tracks (steps) are displayed.

③ Repeat step ② for all tracks to be programmed.

④ Press ■ (13, 81) or *PROG* (11, 85) to end programming.

➔ **PROGRAM** lights continuously.

⑤ Press ▶/II (14) or ▶ (73) to start programmed play.

Clearing a program

① Press ■ (13, 81) to stop programmed play.

② Press ■ (13, 81) again to clear the program.

➔ **PROGRAM** indication disappears from the display.

- The program is also cleared if you open the disc tray.

Erasing a track from a program

① In Stop mode press *PROG* (11, 85) to enter Program mode.

② Use the *REC LEVEL / SELECT* (19) knob, the ⏮ (15, 74) or ⏭ (16, 82) keys, the ◀◀ (17, 75) or ▶▶ (18, 80) keys, or the *NUMERICAL* (9, 70) keys to select the programmed tracks to be erased.

➔ The track number and program step will be shown on the display.

③ Press *DELETE/CANCEL* (23, 79) to erase the track from the program.

➔ The remaining program steps and the remaining playing time of the program will be displayed.

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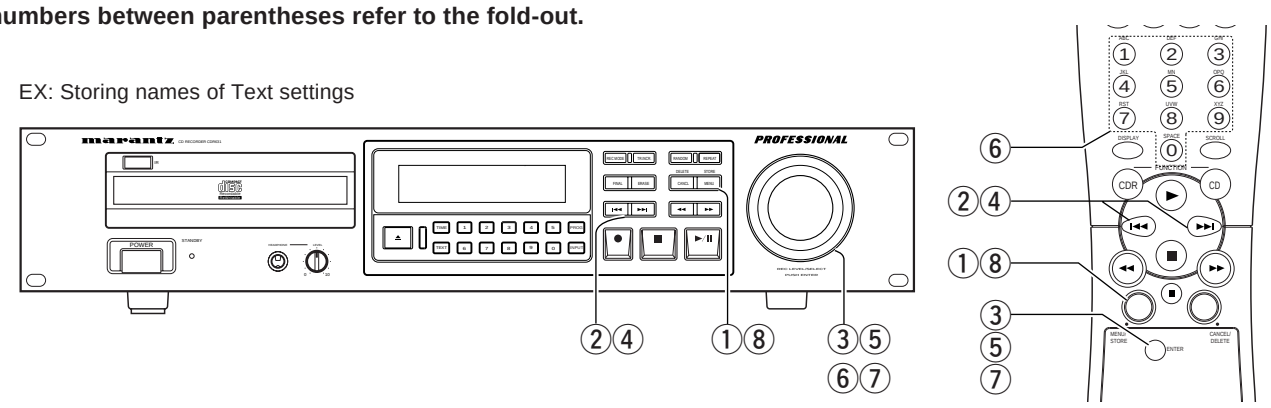
MENU MODE

The numbers between parentheses refer to the fold-out.

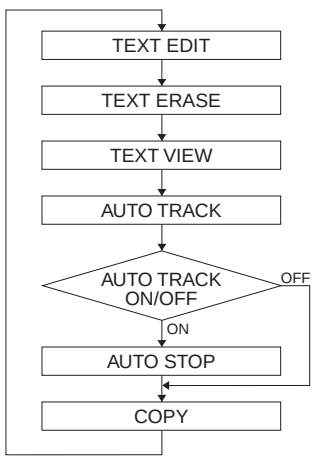
EX: Storing names of Text settings



About MENU MODE

MENU MODE can set up more sophisticated setting for making CDs. There are two kinds of submenus in the MENU MODE.

- Text submenus ..... adding and erasing the CD-Text
- Recording submenus ... Auto track increment ON/OFF
  ... Auto stop ON/OFF
  ... Copy protection
  ... Adjusting right-left-volume balance during the recording



Structure of MENU in the STOPMODE

Note:

- When AUTO TRACK increment is OFF, AUTO STOP does not appears in the menu.
- CD-Text can only be edited on unfinalized discs. (finalized CD-RW discs must be unfinalized)

Text Submenus

The CD-Text feature allows the CD title, artist names, and the track names to be saved on any disc you record. When played back on the CDR631 or any other CD player/recorder that supports CD-Text, the CD-Text information stored on the disc will be displayed.

Note:

Products that offer CD-Text display are available from Marantz, Marantz Professional, and Superscope. Please contact your dealer for more information on these products.

Storing names

① Press *STORE/MENU* (20, 77) to enter Menu mode.
TEXT EDIT appears on the display.

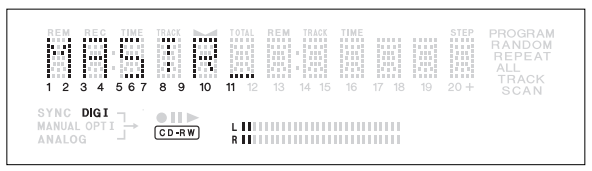
② Press *REC LEVEL/SELECT* (19) to select the TEXT EDIT submenus.

③ Press *PUSH ENTER* (19) or *ENTER* (78) to confirm.

④ Rotate *REC LEVEL/SELECT* (19) or press ◄◄ (15, 74), ►►| (16, 82) to select the required option in the submenu: CD Artist, CD Title, Track 1 Artist, Track 1 Title, etc.

⑤ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.

⑥ Select the characters by rotating the *REC LEVEL/SELECT* (19) or by pressing the corresponding numeric/alphabet key (70).



⑦ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to store the characters and move to the next cursor position.

Notes:

- A maximum of 60 characters can be stored per item.
- With the ◄◄ (17) ►► (18) keys you can move to a required cursor position.
- With the *CANCEL/DELETE* (23, 79) you can delete a character.
- By pressing the *REC LEVEL/SELECT* (19) or *ENTER* (78) without selecting a character first, you can insert a space between characters.
- When an artist's name has been stored for a certain track, the name will automatically be copied to the next track when you chose to edit the artist's name for the next track. To save the same name for the next track press *STORE/MENU* (20, 77) when it is displayed, or a new name can be entered as described above.

⑧ Press *STORE/MENU* (20, 77) to store a name you have entered and return to the submenu or ■ (13, 81) to exit.

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ENGLISH

MENU MODE

The numbers between parentheses refer to the fold-out.

Erasing names

① **Stay in the stop mode. (No Operation)**

② **Press *STORE/MENU* (20, 77) on the deck or the remote control to enter Menu mode.**

③ **Rotate *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the submenu TEXT ERASE.**
TEXT ERASE appears on the display.

④ **Press *REC LEVEL/SELECT* (19) or *ENTER* (78) on the remote control to confirm.**

⑤ **Rotate *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the required option in the submenu: All Text, CD Title, CD Artist, Track 1 Title, Track 1 Artist, etc.**

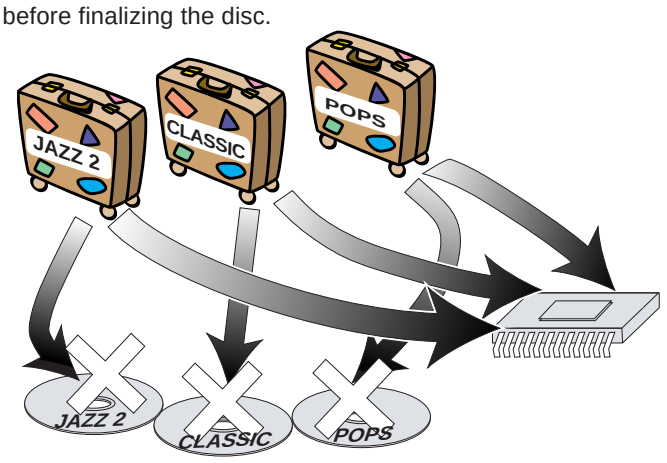
⑥ **Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.**
The display will ask you to reconfirm your selection.

⑦ **Press *PUSH ENTER* (19) or *ENTER* (78) to reconfirm.**

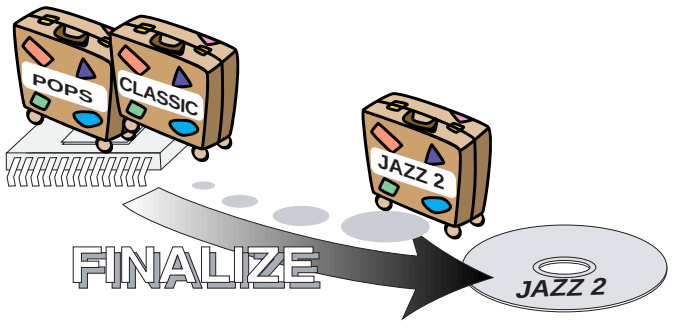
⑧ **Press *STORE/MENU* (20, 77) to return to the submenu or ■ (13, 81) to exit.**

About TEXT

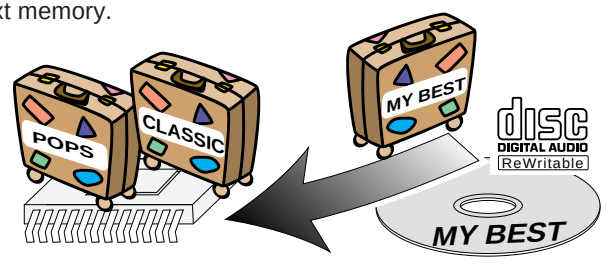
The input text data is saved in the text memory until the disc is finalized. Therefore, the data is not written in the CD-R(W) disc before finalizing the disc.



Finalizing the disc transfers the text data from the text memory to the disc.



Unfinalizing the disc transfers the text data from the disc to the text memory.



UNFINALIZE

When the text memory is full, MEMORY FULL appears on the display and you cannot add more text data.
In this case, you need to free up more space in text memory. You can either finalize one or more disc(s) to transfer the text data to each disc, or erase (part of) the text data in the text memory.

Note:
When the text memory is full depends on the amount of the input text data per disc and the number of discs.
Typically the text memory can store for 50 discs of the text data consisting of 60 characters of an artist name or title for 20 tracks.

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MENU MODE

The numbers between parentheses refer to the fold-out.

Text Memory Review/Erase Text Memory

All input CD-Text data is stored in the Text Memory of the CDR631 until the disc is finalized. If the text memory becomes full, the MEMORY FULL message will appear in the display and you will be unable to add more text. If you would like to add more text, you must finalize a disc that has text stored in the Text Memory or the text for a disc can be erased by following the procedure below.

Note:

- The text for all unfinalized discs is accessible during the Text Memory review mode. You do not need to insert the corresponding disc to erase its text.

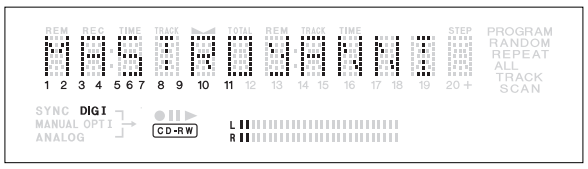
① Stay in the stop mode. (No Operation)

② Press *STORE/MENU* (20, 77) on the deck or the remote control to enter Menu mode.

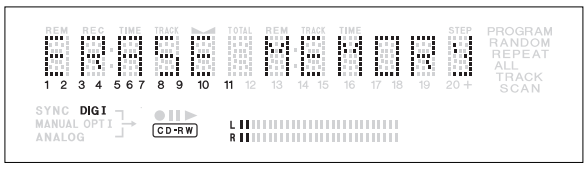
③ Rotate *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the TEXT VIEW submenu.
TEXT VIEW appears on the display.

④ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.

⑤ Rotate *RECLEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the disc you wish to erase.



⑥ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.
ERASE MEMORY **appears on the display.**



⑦ Press the *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm the erasure of the text for that particular disc.

⑧ Press *STORE/MENU* (20, 77) to return to the submenu or ■ (13, 81) to exit.

Notes:

- If there are no discs in the memory, the message MEMORY EMPTY appears on the display.
- MEMORY FULL/FINALIZE CD may also appear when unfinalizing a CD-RW disc for which text was stored (see 'UNFINALIZING CD-RW discs' page 12.). The same action(s) should be taken in order to obtain memory space.

Recording submenus

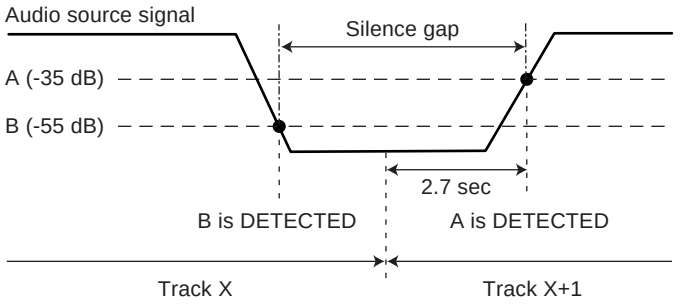
The Auto Track increment menu selection determines whether the CDR631 automatically marks tracks based on the source (Auto Track ON) or if all track increments are made manually via the *TR. INCR.* (25) and *TRACK INCR* (67) buttons (Auto Track OFF).

Note:
The *TR. INCR.* (25) and *TRACK INCR* (67) buttons will mark a track mark during both Auto Track ON and OFF recording.

The most efficient way to record from a digital source is via a digital connection that contains user data. The user data part of a digital signal provides track information to the CD recorder. User data is usually found only in an SPDIF format digital connection. The AES/EBU standard does support user data information.

If Auto Track is ON and the source you are recording from is analog or digital without user data, the CDR631 will use a silence gap to mark tracks. As the chart below indicates, once the source signal drops below -55dB, the CDR631 will look for 2.7 seconds of no signal (-55dB or below). When the source signal returns and reaches a level of -35dB, the CDR631 will then mark a new track and continue recording.

Note:
If the silence gap is less than 2.7 seconds or the dB level never drops below -55dB, the CDR631 will probably not mark a track and continue to record on the same track number.



The chart below will help identify how each source will be handled by the Auto Track system.

AUTO TRACK / Source	**ON**
CD/MD (with user data)	Track increment based on user data of incoming signal
DAT/DCC (with user data)	Track increment based on user data of incoming signal
Unknown (no user data)	Track increment after silence gap of 2.7 seconds on incoming signal
Analog	Track increment after silence gap of 2.7 seconds on incoming signal
No source (no lock)	None

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MENU MODE

The numbers between parentheses refer to the fold-out.

Auto track increment

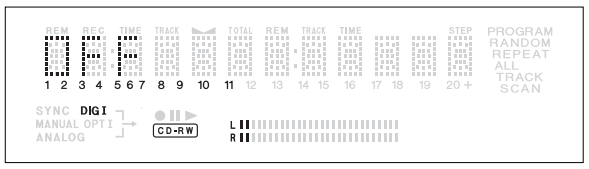
① Stay in the stop mode. (No Operation)

② Press *STORE/MENU* (20, 77) on the deck or the remote control to enter Menu mode.

③ Rotate *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the AUTO TRACK submenu.
AUTO TRACK appears on the display.

④ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.

⑤ Select Auto track ON or OFF by rotating *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82).



⑥ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.
- When ON is selected, track numbers will be automatically incremented during recording.
- When OFF is selected, you can mark the recorded tracks yourself by press *TR.INCR.* (25) or *TRACK INCR* (67).

⑦ Press *STORE/MENU* (20, 77) to store settings and return to the submenu or ■ (13) to exit.

Notes:
- The Auto Track menu item is also available during recording and in the record-standby mode.
- The Auto Track setting determines if the Auto Stop menu item is available. If Auto Track is OFF, Auto Stop is automatically OFF and the Auto Stop menu item is not displayed in the menu. If Auto Track is ON, the Auto Stop menu item is available and Auto Stop can be switched ON or OFF. See this page for information regarding the Auto Stop menu item.

Auto stop

If the Auto Track function is ON, the Auto Track menu item will become available. The Auto Stop function can then be turned ON or OFF depending on the recording requirements.

Note:
Auto Stop is automatically turned OFF and the menu item will not be displayed when Auto Track is OFF.

If Auto Stop is ON, the chart below indicates what amount of silence (-55dB or lower) is required for each source to trigger the CDR631 to stop recording. If Auto Stop is OFF, the CDR631 will record until stopped by the *STOP* (13, 81) button or the end of the disc is reached.

AUTO STOP / Source	ON
CD/MD (with user data)	Stop after 3 seconds of user DATA of stop pattern detected on the incoming source signal
DAT/DCC (with user data)	Stop after 20 seconds of silence
Unknown (no user data available)	Stop after 20 seconds of silence
Analog	Stop after 20 seconds of silence
No source (no lock)	Stop after 3 seconds of unlock

The benefit of turning Auto Stop OFF is, for example, when you are recording sources such as classical music, which could have long passages of low level sound. If Auto Stop is ON in such a case, the CDR631 may automatically stop when it is not supposed to.

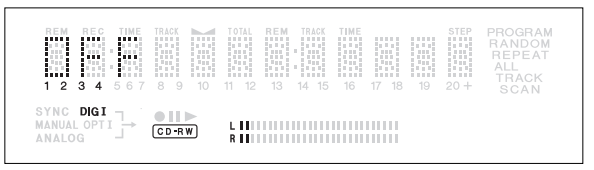
① Stay in the stop mode.(No operation)

② Press *STORE/MENU* (20, 77) on the deck or the remote control to enter Menu mode.

③ Rotate *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the AUTO STOP submenus.
AUTO STOP appears on the display.

④ Press *REC LEVEL/MENU* (19) or *ENTER* (78) to confirm.

⑤ Select Auto stop ON or OFF by rotating *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82).
AUTO STOP ON : fully automatic stop.
AUTO STOP OFF : only manual stop during the recording.



⑥ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) on the remote control to confirm.

⑦ Press *STORE/MENU* (20, 77) to store setting and return to the submenu, or press ■ (13, 81) to exit.

Note:
- The Auto Track menu item is also available during the Record-Pause and Record modes.
- The Auto Track setting determines if the Auto Stop menu item is available. If Auto Track is OFF, Auto Stop is automatically OFF and the Auto Stop menu item is not displayed in the menu. If Auto Track is ON, the Auto Stop menu item is available and Auto Stop can be switched ON or OFF. See page 20 for information regarding the Auto Stop menu item.

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MENU MODE

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The numbers between parentheses refer to the fold-out.

Copy protection

All pre-recorded audio CDs include a digital mark indicating the copy protection status of the disc. This information is stored in the user data area of the disc and is transmitted in the SPDIF format digital output.

Since the CDR631 is a professional CD recorder, it will record from any digital source, ignoring the copy protection setting of the source material. Addtionally, the CDR631 allows you to set the level of copy protection of each disc you record.

There are three settings for the copy protection on a disc:

Copy Protection OFF
This recording allows unlimted digital copying. A consumer digital recording device can digitally record this disc.

Copy Protection ON
This recording does not allows digital copying. A consumer digital recording device will not be able to make digital copies of this disc.

Copy Protection HCO (Home Copy Only)
This recording allows a single generation digital copy to be made for personal use. A consumer digital recording device will be able to digitally record this disc but the copy will have Copy Protection ON so that further digital copies can not be made.

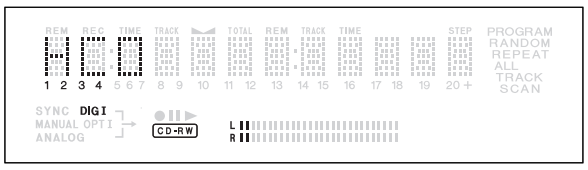
① Stay in the stop mode.(No operation)

② Press *STORE/MENU* (20, 77) to enter Menu mode.

③ Rotate *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the Copy submenus.
COPY appears on the display.

④ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.

⑤ Select Copy ON, OFF, or HCO by rotating *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82).



⑥ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.

⑦ Press *STORE/MENU* (20, 77) to store setting and return to the submenu, or press ■ (13, 81) to exit.

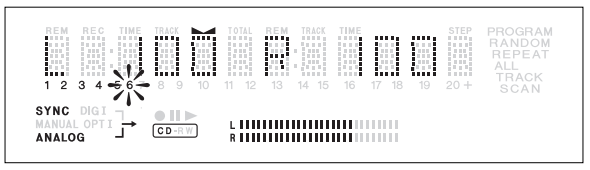
Note:
Analog and AES/EBU digital sources do not carry copy protection.

Balance (Only active in Record/Standby mode)

During recording (with both analog and digital sources), the balance of the audio recorded onto the disc can be adjusted using the Balance menu item.

① Press *STORE/MENU* (20, 77) to enter Menu mode.

② Rotate *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82) to select the SET BALANCE submenu.
SET BALANCE appears on the display.



③ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.
→ and L 100 R 100 appear on the display.

④ Adjust the recording balance by turning the *REC LEVEL/SELECT* (19) or press ⏮ (15, 74), ⏭ (16, 82).

⑤ Press *REC LEVEL/SELECT* (19) or *ENTER* (78) to confirm.

⑥ Press *STORE/MENU* (20, 77) to store settings.

Noted:
The balance setting is not saved if a disc is changed or the power is switched off.

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DISPLAY

Messages, as listed and explained here, may appear on the display for your guidance.

General

READING ..... reading disc information (page 8)
OPEN ..... during tray opening (page 8)
CLOSE ..... during tray closing (page 8)
NO DISC ..... no disc inserted, disc unreadable or disc inserted upside down
PROG FULL ..... program full
INSERT DISC ..... insert disc or insert disc in correct way
WRONG DISC ..... inserted disc is not ar audio CD
UNFINALIZED ..... unfinalized CD-R(W) disc
MEMORY xx% ..... indicates the amount of text memory used for unfinalized discs

Recording

WAIT ..... - when ■ STOP is pressed during recording
- when ■ STOP is pressed during recording the first 4 seconds of a track
UPDATE ..... updating disc contents
DISC FULL ..... no more recording possible
DIGITAL 1 ..... digital coaxial input 1 selected (page 9, 10, 11)
OPTICAL ..... digital optical input selected (page 10, 11)
ANALOG ..... analog input selected (page 10, 11)
NOTFINALIZED ..... when opening the tray with an unfinalized disc inserted (in the CD-Recorder)
MAKE CD ..... Start of synchronised recording of a complete disc and Auto Finalize function selected (page 9, 10, 11, 12)
RECORD DISC ..... Start of synchronised recording of a complete disc (page 9, 10)
RECORD TRACK ..... Start of synchronised recording of a single track (page 9, 10)
REC MANUAL ..... manual start of recording selected (page 9, 11)
-xx dB ..... Recording level is being adjusted
DOES NOT FIT ..... time left on CD-R(W) disc is not enough for proposed recording (page 9)
ERASE TRACK ..... when erasing one or more tracks (page 13)
ERASE DISC ..... when erasing a disc (page 13)
FINALIZE CD ..... when finalizing a disc (page 9, 10, 12)
CHECK INPUT ..... when ● is pressed while no digital source is detected
xx xx ERASE ..... time countdown when erasing a track or a disc
xxxx FINAL ..... time countdown when finalizing a disc (page 12)
PRESS RECORD ..... to start manual recording, finalizing or erasing (page 12, 13)
START SOURCE ..... to start synchronised recording from a source
FINALIZED ..... when trying to record on a finalized CD-R(W) or a prerecorded CD
UNFINALIZE
PRESS ENTER ..... when trying to record on a finalized CD-RW (page 9, 12, 13)
PROF SOURCE ..... when a professional source is connected

Play

PROGRAM ..... program mode selected (page 6)
ALBUM TITLE ..... will be followed by album title
TRACK TITLE ..... will be followed by track title
ALBUM ARTIST ..... will be followed by artist name (page 8)
TRACK ARTIST ..... will be followed by track artist name

Others

NO AUDIO TR ..... when the recorder finds a data track during recording
FINALIZED CD ..... laser power calibration performed (page 9)
INITIALIZING ..... during laser power calibration for unfinalized discs (page 8)
DISC RECOVER ..... during disc recovering after power failure (page 24)
OPC ERROR ..... OPC failure during OPC procedure (OPC = Optimum Power Calibration)
RECORD ERROR ..... recording error in menu mode
DISC ERROR ..... when trying to record on or finalize a recovered disc (page 24)
MEMORY FULL
FINALIZED CD ..... when text memory is full. To add a CD to the list, first finalize or erase another disc from the list. (page 12, 18, 19)

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DISPLAY

Menu messages

NO TRACKS ..... when attempting to edit text on a disc which has no tracks

TEXT EDIT ..... when entering Text Edit mode

CD ARTIST ..... when editing or erasing an artist name

CD TITLE ..... when editing or erasing a title

ARTIST TR N ..... when editing or erasing an artist name per track

TITLE TR N ..... when editing or erasing a title per track

TEXT ERASE ..... when entering Text Erase mode

ALL TEXT ..... when entering All Text mode

ERASE OK ..... when confirmation for erasing has to be given with ENTER key

ERASE ALL OK ..... when confirmation for erasing all tracks have to be given with ENTER key

ERASE MEMORY ..... when waiting for confirmation when erasing a disc

TEXT VIEW ..... when selecting text review per unfinalized disc in memory (page 19)

MEMORY EMPTY ..... when REVIEW is selected while no text is in memory

AUTO TRACK ..... when selecting auto track increment ON or OFF

ON ..... Auto Track increment on (page 19, 20)

OFF ..... Auto Track increment off (page 19, 20)

SET BALANCE ..... when selecting BALANCE (page 20)

NO TEXT ..... no text stored for disc

OTHER INFORMATIONS

The numbers between parentheses refer to the fold-out.

ENGLISH

Fixing problems

If you think your CD-Recorder is defective, it is wise to read this list first. Maybe you forgot a simple step.

Warning!

Under no circumstances should you attempt to repair the CD-recorder yourself as this will invalidate the guarantee.

No power

- ensure that the ***POWER ON/OFF*** (1) button is on: the CD-Recorder may be in standby mode, press any button to activate it
- ensure that the power cord is plugged in correctly
- switch the recorder OFF and then immediately back ON

Auto track does not work

- check if auto track is ON
- check if there are 2.7 seconds silence in between the tracks (analog recording only)
- check that the digital source conforms to the SPDIF (or IEC-958-II) standard
- source is a DVD video disc (DVD video discs do not contain track information)
- make sure AES/EBU or analog source meet track marking criteria on page 19

No sound

- check the audio connections
- if using a amplifier or receiever, check that a signal is present using headphones or try a different amplification system

Amplified Sound is distorted

- check that the CD-Recorder analog output is not connected to a PHONE input.
- check that the disc is not defective by trying another disc

Play will not start

- ensure that the label of the CD is facing up
- clean the disc
- check that the disc is not defective by trying another disc

Remote control does not work

- set the remote control selector to 'INTERNAL' on the back panel
- point the remote control directly at the CD-Recorder
- check the batteries and replace if necessary
- select the right source first (CDR)

Will not record

- clean the disc
- check if CD-R(W) is an unfinalized disc
- check that the disc is recordable and replace if necessary
- the disc is not an audio disc (WRONG DISC)
- wrong input source chosen.
- text memory full (MEMORY FULL/FINALIZE CD). Erase text for other disc(s) or finalize other disc(s) to obtain memory space.
- check that the disc is not defective by trying another disc

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OTHER INFORMATIONS

The numbers between parentheses refer to the fold-out.

Recording is distorted

- make sure the recording level was not too high
- check that the disc is not defective by trying another disc

20 second pause between recordings

- see ‘RECORDING’ CD SYNC on page 10

Player does not react

- use the ***POWER ON/OFF*** (1) button on the front of the Player to switch it off and back on

DISC RECOVER on display

- a power failure has occurred during recording the CD-Recorder is attempting to repair the disc
- If DISC ERROR then appears on the display, the disc cannot be recorded further, and cannot be Finalized. But it can still be played on the CDR631 or another CD-Recorder.
- on a CD-R(W) disc, the track being recorded is lost, but further recording and finalisation can still be done
- check that the disc is not defective by trying another disc

XLR input level is too low or too high

- adjust the R and L TRIM pots on the back panel to the optimum level

Digital input source indication is flashing

- check the digital cable connections
- check that the output of the digital source is conforms to the SPDIF (or IEC-958-II) standard
- If you are using the XLR (AES/EBU) input, check that the switch (34) is set correctly on the back panel and make sure the source is set to output AES/EBU format digital audio
- try a different cable to make sure the digital cable is OK

Recorded disc playback quality on other CD players is poor

- make sure to use good quality discs when recording audio
- make sure the discs used for recording are compatible with 1X speed recording
- try recording onto a 'Music' (consumer) type blank disc because they are specially designed for 1X speed audio recording
- If using 80 minute discs, try a 74 minute disc because they provide a wider recording area and thus have a less chance for error

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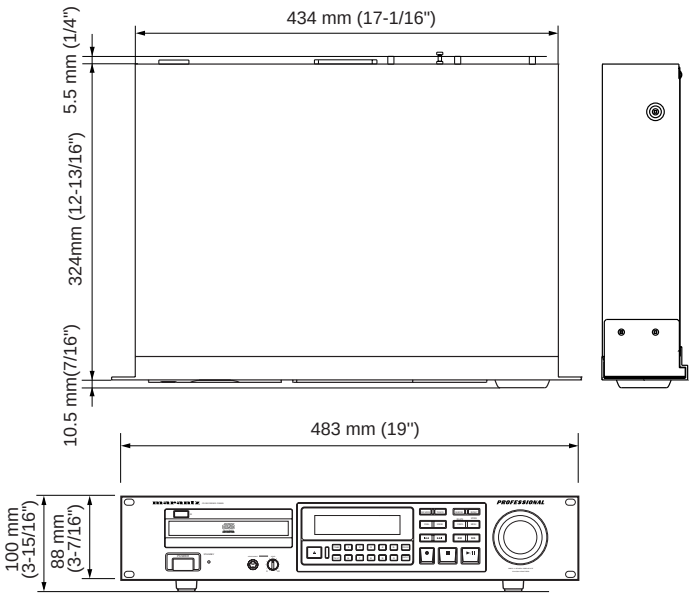
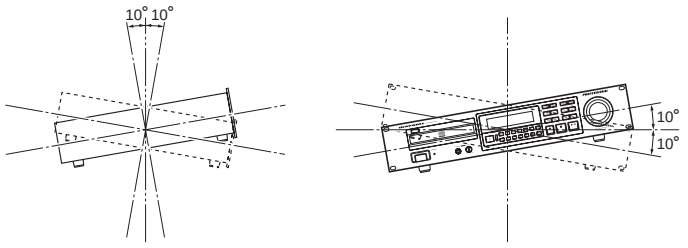
MEMO

EXTERNAL DIMENSIONS



Cautions of Installation

- Install the player horizontally (or within 10 degrees of level). Too much inclination may result in damage to the player.
- Secure the player at all four point when installing it in a 19-inch rack. (see also figure 3)



TECHNICAL SPECIFICATIONS

GENERAL

System ..... Compact Disc Digital Audio (CD-DA)
Number of channels ..... 2 (stereo)
Applicable discs ..... CD,CD-R,CD-RW
Power Requirement ..... AC 120 V 60 Hz
Power Consumption ..... 19 W
Operating Temperature
Dimension (MAX)
Width ..... 19 inches (483 mm)
Height ..... 3-15/16 inches (100 mm)
Depth ..... 13-7/16 inches (340 mm)
Weight ..... 10.4 lbs (4.7 Kg)

AUDIO

Frequency Response ..... 20 Hz - 20 kHz
Playback S/N ..... 108 dB
Playback Dynamic Range ..... 95 dB
Payback Total Harmonic Distortion ..... 92 dB
Analog Recording S/N ..... 96 dB
Analog Recording Dynamic Range ..... 92 dB
Analog Recording Total Harmonic Distortion ..... 88 dB
Analog Line Output Voltage ..... 2.0 Vrms
Digital Coaxial Output ..... 0.5 V (p-p)/75
Digital Optical Output ..... -20dBm
Headphone ..... 0 - 5 Vrms/ 8 - 2000

Recording values for line input
Digital Coaxial Input (automatic sample rate conversion) ..... 32/44.1/48 kHz (11 kHz - 56 kHz)
Digital Optical Input (automatic sample rate conversion) ..... 32/44.1/48 kHz (11 kHz - 56 kHz)
Digital XLR Input (automatic sample rate conversion) ..... 32/44.1/48 kHz (11 kHz - 56 kHz)
Analog Input Sensitivity (Unbalanced) ..... 500 mVrms/50 k
(Balanced) ..... 0 dBu to + 22 dBu/50 k
(default setting : +16dBu/50 k)

INCLUDED ACCESSORIES

Remote Control Unit RC6050DR 1
AA-size batteries 2
AC power cord 1
Audio cable (white and red) 2
Digital Coaxial cable (black) 1

Specifications subject to change without prior notice.

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